

WHAT IS CLAIMED IS:

1. A transgenic rodent, the nucleated cells of which comprise a transgene, said transgene comprising an immunoglobulin kappa light chain 3' enhancer sequence operably linked to a nucleic acid sequence encoding an anti-apoptotic polypeptide in the Bcl-2 family, wherein said transgenic rodent exhibits expanded plasma cell and mature B cell populations as compared with a corresponding wild-type rodent.
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2. The transgenic rodent of claim 1, wherein said transgenic rodent is a mouse.
- 10 3. The transgenic rodent of claim 1, wherein said anti-apoptotic polypeptide is selected from the group consisting of Bcl-2, Bcl-xL, Bcl-W, and Mcl-1.
4. The transgenic rodent of claim 1, wherein said anti-apoptotic polypeptide is a human Bcl-xL polypeptide.
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5. Progeny of the transgenic rodent of claim 1, wherein the nucleated cells of said progeny comprise said transgene.
6. An isolated cell of the transgenic rodent of claim 1.
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7. The cell of claim 6, wherein said cell is a plasma cell.
8. The transgenic rodent of claim 1, wherein said transgene further comprises a kappa promoter operably linked to a nucleic acid sequence encoding said anti-apoptotic polypeptide.
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9. A transgenic rodent, the nucleated cells of which comprise:
 - (a) a first transgene comprising an immunoglobulin kappa light chain 3' enhancer sequence operably linked to a nucleic acid sequence encoding an anti-apoptotic polypeptide in the Bcl-2 family; and
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(b) a second transgene comprising a B cell developmentally regulated transcriptional enhancer sequence operably linked to a proliferative oncogene nucleic acid sequence, wherein said transgenic rodent contains a plasma cell tumor.

5 10. The transgenic rodent of claim 9, wherein said proliferative oncogene nucleic acid sequence is ras.

11. The transgenic rodent of claim 9, wherein said proliferative oncogene nucleic acid sequence is myc.

10 12. The transgenic rodent of claim 9, wherein said B cell developmentally regulated transcriptional enhancer sequence is an immunoglobulin kappa light chain 3' enhancer sequence.

15 13. The transgenic rodent of claim 9, wherein said B cell developmentally regulated transcriptional enhancer sequence is an immunoglobulin heavy chain enhancer sequence.

20 14. The transgenic rodent of claim 9, wherein said anti-apoptotic polypeptide is selected from the group consisting of Bcl-2, Bcl-xL, Bcl-W, and Mcl-1.

15. The transgenic rodent of claim 9, wherein said anti-apoptotic polypeptide is a human Bcl-xL polypeptide.

25 16. Progeny of the transgenic rodent of claim 9, wherein said progeny comprise said first transgene and said second transgene.

17. An isolated cell of the transgenic rodent of claim 9.

30 18. The cell of claim 17, wherein said cell is a plasma cell.

19. A method for identifying an agent that inhibits development of a plasma cell tumor, said method comprising:

a) administering a test agent to a transgenic rodent, the nucleated cells of which comprise

5 (i) a first transgene comprising an immunoglobulin kappa light chain 3' enhancer sequence operably linked to a nucleic acid sequence encoding an anti-apoptotic polypeptide in the Bcl-2 family; and

(ii) a second transgene comprising a B cell developmentally regulated transcriptional enhancer sequence operably linked to a proliferative oncogene nucleic acid sequence, wherein said transgenic rodent develops a plasma cell tumor in the absence of pharmacological intervention; and

10 b) determining if said test agent inhibits development of said plasma cell tumor in said transgenic rodent as compared with a corresponding transgenic rodent to which said test agent has not been administered.

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20. A method for identifying an agent for treating a plasma cell tumor, said method comprising:

a) administering a test agent to a transgenic rodent, the nucleated cells of which comprise

20 (i) a first transgene comprising an immunoglobulin kappa light chain 3' enhancer sequence operably linked to a nucleic acid sequence encoding an anti-apoptotic polypeptide in the Bcl-2 family; and

(ii) a second transgene comprising a B cell developmentally regulated transcriptional enhancer sequence operably linked to a proliferative oncogene nucleic acid sequence, wherein said transgenic rodent exhibits a plasma cell tumor; and

25 b) determining if said test agent slows tumor growth, stops tumor growth, reduces tumor size, or decreases plasma cell number in said transgenic rodent as compared with a corresponding transgenic rodent to which said test agent has not been administered.

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21. A method for producing polyclonal antibodies, said method comprising immunizing a transgenic rodent, the nucleated cells of which comprise a first transgene, said first transgene comprising an immunoglobulin kappa light chain 3' enhancer sequence operably linked to a nucleic acid sequence encoding an anti-apoptotic polypeptide in the Bcl-2 family, wherein said transgenic rodent exhibits an expanded plasma cell and mature B cell population as compared with a corresponding wild-type rodent; and harvesting said polyclonal antibodies.
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22. The method of claim 21, wherein said transgenic rodent further comprises a second transgene, said second transgene comprising a B cell developmentally regulated transcriptional enhancer sequence operably linked to a proliferative oncogene nucleic acid sequence, wherein said transgenic rodent exhibits a plasma cell tumor.
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